## **ARTICLE 72-06**

## **ELECTIONS**

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## CHAPTER 72-06-01 CERTIFYING AND DECERTIFYING ELECTRONIC VOTING SYSTEMS

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## 72-06-01-01. Definitions.

- 1. "Company" means any company, corporation, limited liability company, or other entity engaged in the business of supplying electronic voting systems.
- 2. "EAC" means the federal election assistance commission or any entity or agency succeeding to its function or role.

**History:** Effective March 1, 2004; amended effective July 1, 2006.

**General Authority:** NDCC 16.1-06-26 **Law Implemented:** NDCC 16.1-06-26

**72-06-01-02.** Certification by secretary of state of electronic voting systems. Prior to use and procurement in this state, a company supplying electronic voting systems shall give written notice to the secretary of state and provide a demonstration certifying that its system complies with applicable laws and is certified by an independent test authority accredited by the EAC as fulfilling the requirements of the EAC voluntary voting system guidelines. If the secretary

of state approves the voting system, the secretary of state shall issue a certificate of approval.

Any changes or modifications in electronic voting systems may be certified by the secretary of state with or without the demonstration described in this section for initial approval provided that the modified system has been certified as fulfilling the requirements of the EAC voluntary voting system guidelines.

History: Effective March 1, 2004; amended effective July 1, 2006.

General Authority: NDCC 16.1-06-26

Law Implemented: NDCC 16.1-06-10.1, 16.1-06-11, 16.1-06-14, 16.1-06-26

**72-06-01-03.** Decertification by secretary of state of electronic voting systems. The secretary of state may decertify and revoke a certificate of approval of any electronic voting system previously certified according to section 72-06-01-02 if the secretary of state becomes aware that:

- 1. Any substantial modification was made to the electronic voting system that was not certified according to section 72-06-01-02; or
- Documented evidence exists showing malfunctioning by the electronic voting system that cannot be explained by user or operator error, and which the company cannot adequately or chooses not to account for.

**History:** Effective March 1, 2004; amended effective July 1, 2006.

**General Authority:** NDCC 16.1-06-26

Law Implemented: NDCC 16.1-06-14, 16.1-06-26

**72-06-01-04.** Criteria for approving direct recording electronic voting systems. Before the secretary of state grants a certificate of approval, the following capabilities or features of a direct recording electronic voting system must be demonstrated to the secretary of state or the secretary of state's designee upon such official's request. As used in this section, the term system means direct recording electronic voting system. The secretary of state may grant a certificate of approval for a system if the system fulfills the requirements of North Dakota Century Code section 16.1-06-14 and is approved or certified by the EAC. The secretary of state may also require that one or more of the following capabilities or features also be included in a system prior to its approval:

- Presents the entire ballot to the voter in a series of sequential screens that include methods to ensure the voter sees all ballot options on all screens before completing the vote and allows the voter to review all ballot choices before casting a ballot;
- Alerts the voter on the screen if the voter attempts to over vote or cross-party vote and provides information on how to correct the over vote or cross-party vote;

- 3. Is an electronic computer-controlled voting system that provides for direct recording and tabulating of votes cast;
- 4. Has a battery backup system that, at a minimum, allows voting to continue uninterrupted for two hours without external power;
- 5. Along with any activating and vote recording devices and components, has a unique embedded internal serial number for audit purposes;
- 6. Is designed to accommodate multiple ballot styles in each election precinct and multiple precincts;
- 7. Has a real-time clock capable of recording and documenting the total time polls are open in a precinct and capable of documenting the opening and closing of polls;
- 8. Complies with the disability voting requirements of the Help America Vote Act [Pub. L. 107-252; 42 U.S.C. 15301-15545];
- For security purposes, along with each associated activating and recording device and component, employs a unique, electronically implanted election-specific internal security code such that the absence of the security code prevents substitution of any unauthorized system or related component;
- 10. Has a color touch-screen that is at least fifteen inches [38.1 centimeters] in diagonal measure:
- 11. Has an option to accommodate a wheelchair voter without intervention of the poll worker other than a minor adjustment such as the angle of the display, and the voter must be able to vote in a face-first position so that privacy is maintained with the ballot surface adjusted to a vertical position;
- 12. Has wheels so that the system may be easily rolled by one person on rough pavement and rolled through a standard thirty-inch [76.2-centimeter] doorframe if the net weight of the system, or aggregate of voting device parts, is over twenty pounds [9.07 kilograms];
- 13. Has a smart card-type device to activate the system for each individual voter. The election worker or voters shall be able to activate the card at the poll table with an activation device and hand the card to the voter to use on any open voting system. The card shall be rendered unusable by the voting system after the voter has cast a ballot and after a period of time has expired. There shall be a manual solution available in the event the smart card activation device or the smart card reading unit on the machine fails:

- 14. Prints an alphanumeric printout of the contest, candidates, position numbers, and vote totals when the polls are open so that the election workers may verify that the counters for each candidate are on zero. These printouts shall contain the system serial number and the counter total. The election worker must be able to request as many copies as needed. The system shall include a feature to allow reports to be sent to a printer or to an excel-compatible file;
- 15. The system central processing unit is designed so that no executable code may be launched from random access memory. If the operating system is open or widely used, it must be an embedded system;
- 16. Provides an electronic, redundant storage of both the vote totals and the randomized individual ballot images. These randomized images must be able to be printed after the polls close;
- 17. Allows a comparison of the multiple locations of totals and ballot images to detect any errors or discrepancies. In the event of a data discrepancy, an appropriate error message shall be displayed in a text format, in order to either correct the data error or prohibit voting from continuing;
- 18. Has a programmable memory device that plugs into the system. This programmable memory device shall contain the ballot control information, the summary vote totals, maintenance log, operator log, and the randomized ballot images;
- 19. Maintains all vote totals, counter totals, audit trail ballot images, and the internal clock time in both the main memory and the removable programmable memory devices in the event the main power and battery backup power fail;
- 20. Has a self-contained, internal backup battery that powers all components of the system that are powered by alternating current power. In the event of a power outage in the precinct, the self-contained, internal backup battery power shall engage with no disruption of operation or loss of data. The system shall maintain all vote totals, counter totals, audit trail ballot images, and the internal clock time in both the main memory and the removable programmable memory devices in the event the main power and battery backup fail;
- 21. Has software that is able to run in a networked or stand-alone environment and supports early voting;
- 22. Has a standard or as an option, software and hardware provisions for remote transmission of election results to a central location;
- 23. Has internal operating system software or firmware that:
  - a. Is specifically designed and engineered for the election application:

- b. Is contained within each touch-screen voting device;
- C. Is stored in a nonvolatile memory within each terminal;
- Includes internal quality checks such as purity or error detection and correction codes; and
- e. Includes comprehensive diagnostics to ensure that failures do not go undetected;
- 24. Has a mandatory preelection testing of the ballot control logic and accuracy. The logic and accuracy test results must be stored into the memory of the main processor (central processing unit) and into the same programmable memory device that is used on election day for future reference. The test results must be stored by vote total summaries and by each individual ballot image randomly. The system must be capable of printing a zero-results printout prior to these tests and results printout after the tests; and
- 25. Stores tabulation of votes, ballot by ballot, in two or more memory locations on separate integrated circuit chips and shall be electronically compared throughout the election. Any differences between votes tabulated and votes stored in multiple storage locations shall be detected immediately and generate an error message defining required maintenance on the electronic voting system before the system continues to be used in the election.

History: Effective March 1, 2004; amended effective July 1, 2006.

**General Authority: NDCC 16.1-06-26** 

**Law Implemented:** NDCC 16.1-06-14, 16.1-06-26

**72-06-01-05. Defining a vote on optical scan ballots used as a part of an electronic voting system.** A voting mark that touches the oval on an optical scan ballot used as a part of an electronic voting system shall be counted as if it were in the oval. Except as provided in North Dakota Century Code section 16.1-13-25, if the voting mark does not touch the oval and is not in the oval, the vote may not be counted.

**History:** Effective March 1, 2004; amended effective July 1, 2006.

**General Authority:** NDCC 16.1-06-26 **Law Implemented:** NDCC 16.1-06-26

**72-06-01-06.** Defining a vote on direct recording electronic voting systems. A vote on a direct recording electronic voting system is one that is directly recorded and tabulated on an electronic computer-controlled voting system by a method that ensures a voter sees all ballot options on all screens before

completing the vote and allows the voter to review all ballot choices before casting a ballot.

History: Effective March 1, 2004. General Authority: NDCC 16.1-06-26 Law Implemented: NDCC 16.1-06-26

**72-06-01-07.** Temporarily defining a vote on new electronic voting system, not otherwise addressed in this chapter. After certifying a new electronic voting system according to section 72-06-01-01 which is not otherwise addressed in this chapter, and within sixty days following the issue of a certificate of approval by the secretary of state, the secretary of state shall temporarily define and publicize what constitutes a vote on the newly certified electronic voting system, which will govern until a permanent definition is adopted by rule.

History: Effective March 1, 2004; amended effective July 1, 2006.

**General Authority:** NDCC 16.1-06-26 **Law Implemented:** NDCC 16.1-06-26

**72-06-01-08.** Criteria for approving ballot marking devices. Before the secretary of state grants a certificate of approval, the following capabilities or features of a ballot marking device must be demonstrated to the secretary of state or the secretary of state's designee upon such official's request. As used in this section, the term "device" means ballot marking device. The secretary of state may grant a certificate of approval for a device if the device fulfills the applicable subsection requirements of North Dakota Century Code section 16.1-06-14 and is approved or certified by the EAC. The secretary of state may also require that one or more of the following capabilities or features also be included in a system prior to its approval:

- Presents the entire ballot to the voter in a series of sequential screens that include methods to ensure the voter sees all ballot options on all screens before completing the vote and allows the voter to review all ballot choices before casting a ballot;
- Alerts the voter on the screen if the voter attempts to over vote or cross-party vote and provides information on how to correct the over vote or cross-party vote;
- Is an electronic computer-controlled voting system that provides for direct marking of the voter's choices on a paper ballot without tabulation of votes cast;
- 4. Has a battery backup system that, at a minimum, allows voting to continue uninterrupted for two hours without external power;
- 5. Is designed to accommodate multiple ballot styles in each election precinct and multiple precincts;

- Has a real-time clock capable of recording and documenting the total time polls are open in a precinct and capable of documenting the opening and closing of polls;
- 7. Complies with the disability voting requirements of the Help America Vote Act [Pub. L. 107-252; 42 U.S.C. 15301-15545];
- For security purposes, along with each associated activating and recording device and component, employs a unique, electronically implanted election-specific internal security code such that the absence of the security code prevents substitution of any unauthorized system or related component;
- 9. Has a color touch-screen that is at least fifteen inches [38.1 centimeters] in diagonal measure;
- 10. Has an option to accommodate a wheelchair voter without intervention of the poll worker other than a minor adjustment such as the angle of the display, and the voter must be able to vote in a face-first position so that privacy is maintained with the ballot surface adjusted to a vertical position;
- 11. Has wheels so that the system may be easily rolled by one person on rough pavement and rolled through a standard thirty-inch [76.2-centimeter] doorframe if the net weight of the system, or aggregate of voting device parts, is over twenty pounds [9.07 kilograms];
- 12. Is activated by an official election ballot;
- Upon activation is able to detect any premarked votes, and if votes are present, the device will not allow the voter to mark any additional votes with the device;
- 14. Has the capability to display, both visually and through voice files, the marked votes on a paper ballot for the benefit of a person who is not able to read or see the marks on the ballot and who desires an independent verification of marked votes prior to casting and tabulation of the votes;
- 15. The system central processing unit is designed so that no executable code may be launched from random access memory. If the operating system is open or widely used, it must be an embedded system;
- 16. Has a programmable memory card that plugs into the system. This programmable memory card shall contain the ballot definitions;
- 17. Has a self-contained, internal backup battery that powers all components of the system that are powered by alternating current power. In the event of a power outage, the self-contained, internal

backup battery power shall engage with no disruption of operation or loss of ballot definitions;

- 18. Has the capability to support early voting; and
- 19. Has internal operating system software or firmer that:
  - a. Is specifically designed and engineered for the election application;
  - b. Is contained within each ballot marking device;
  - C. Is stored in a nonvolatile memory within each terminal;
  - d. Includes internal quality checks such as purity or error detection and correction codes; and
  - e. Includes comprehensive diagnostics to ensure that failures do not go undetected.

History: Effective July 1, 2006.

General Authority: NDCC 16.1-06-26

Law Implemented: NDCC 16.1-06-14, 16.1-06-26